

IN THE CLAIMS

1. (Currently amended) A method for controlling and monitoring an industrial controller using a portable wireless device, utilizing a system including a programmable logic controller (PLC), a local server, and a wireless Internet Service Provider (ISP), said method comprising the steps of:

monitoring and controlling a system using a programmable logic controller (PLC);

exchanging communications between the PLC and a local server;

exchanging communications between the local server and a wireless Internet Service Provider (ISP) server utilizing the Internet;

configuring the local server to communicate with the PLC via a local area network and to convert an Internet protocol into a protocol compatible with the PLC;

transmitting, via the wireless ISP server, commands from a wireless user communication device to the PLC, wherein the PLC is configured to determine whether to energize an output module based on a state of an input module;

displaying information retrieved from the PLC using the wireless ISP server;
and

controlling said PLC, via said wireless ISP server, by formatting, in a wireless markup language, responses to the commands.

2. (Original) A method in accordance with Claim 1 wherein said step of exchanging communications between the PLC server and the local server further comprises the step of sending PLC operational data from the PLC to the local server.

3. (Previously presented) A method in accordance with Claim 2 wherein said step of exchanging communications between the local server and the ISP server further comprises the step of sending the PLC operational data from the local server to the wireless ISP server.

4. (Previously presented) A method in accordance with Claim 3 wherein the wireless user communication device includes a display for displaying information, said method further comprising exchanging communications between the wireless ISP server and the wireless user communication device, wherein said step of exchanging communications between the wireless ISP server and the wireless user communication device further comprises the steps of:

 sending the PLC operational data from the wireless ISP server to the wireless user communication device; and

 displaying the PLC operational data on the wireless user communication device display.

5. (Previously presented) A method in accordance with Claim 1 wherein the wireless user communication device includes an input device for inputting information to the wireless user communication device, said method further comprising exchanging communications between the wireless ISP server and the wireless user communication device, wherein said step of exchanging communications between the ISP server and the wireless user communications device further comprises the steps of:

 inputting at least one PLC command;

 inputting PLC operational response data using the input device;

 sending the at least one PLC command from the wireless user communication device to the wireless ISP server; and

sending the PLC operational response data from the wireless user communication device to the wireless ISP server.

6. (Previously presented) A method in accordance with Claim 5 wherein said step of exchanging communications between the local server and the wireless ISP server further comprises the steps of:

sending the at least one PLC command from the wireless ISP server to the local server using the Internet; and

sending the PLC operational response data from the wireless ISP server to the local server using the Internet.

7. (Original) A method in accordance with Claim 6 wherein said step of exchanging communications between the PLC and the local server further comprises the steps of:

sending the at least one PLC command from the local server to the PLC; and

sending the PLC operational response data from the local server to the PLC.

8. (Previously presented) A method in accordance with Claim 6 wherein said step of monitoring and controlling further comprises the steps of:

controlling an operation of the PLC using the at least one PLC command; and

controlling the operation of the PLC using the PLC operational response data.

9. (Currently amended) A system for controlling and monitoring an industrial controller using a wireless device, said system comprising:

a programmable logic controller (PLC);

a local server configured to exchange communication with said PLC;

a wireless Internet Service Provider (ISP) server configured to exchange communication with said local server using the Internet, ~~wherein~~said local server implemented within a single device physically separate from said PLC, coupled to said PLC via a local area network, and configured to convert an Internet protocol into a protocol compatible with said PLC, and said wireless ISP server configured to control said PLC by formatting, in a wireless markup language, a set of responses to a set of commands; and

a wireless user communication device configured to exchange communication with said wireless ISP server, wherein said PLC configured to exchange communication via said wireless ISP server with said wireless user communication device and configured to determine whether to energize an output module based on a state of an input module.

10. (Previously presented) A system in accordance with Claim 9 wherein said local server further configured to access PLC operational data from said PLC.

11. (Previously presented) A system in accordance with Claim 10 wherein said local server further configured to communicate the PLC operational data to said wireless ISP server.

12. (Previously presented) A system in accordance with Claim 11 wherein said wireless ISP server further configured to communicate the PLC operational data to said wireless user communication device.

13. (Original) A system in accordance with Claim 12 wherein said wireless user communication device further configured to display the PLC operational data.

14. (Previously presented) A system in accordance with Claim 9 wherein said wireless user communication device further configured to initiate at least one PLC command and communicate the PLC command to said wireless ISP server.

15. (Previously presented) A system in accordance with Claim 14 wherein said wireless user communication device further configured to initiate PLC operational

response data and communicate the PLC operational response data to said wireless ISP server.

16. (Previously presented) A system in accordance with Claim 15 wherein said wireless ISP server further configured to communicate the at least one PLC command and the PLC operational response data to said local server.

17. (Original) A system in accordance with Claim 16 wherein said local server further configured to communicate the at least one PLC command and the PLC operational response data to said PLC.

18. (Previously presented) A system in accordance with Claim 9 wherein said wireless user communication device comprises:

a user interface configured for an input of information to said wireless user communication device; and

a display configured to display the user input information and information received by said wireless user communication device from said wireless ISP server.

19. (Previously presented) A method in accordance with Claim 3 further comprising formatting and processing the PLC operational data into the wireless markup language.

20. (Previously presented) A method in accordance with Claim 19 further comprising transmitting the PLC operational data to the wireless user communication device by applying a wireless application protocol to the PLC operational data.